

### CLAIMS

1. Apparatus for transmitting digital data comprising:  
a data coder configured to convert the digital data into one or more types of sound parameters; and  
a sound synthesizer coupled to the data coder and configured to generate sound based on the one or more types of sound parameter.
2. The apparatus of claim 1, further comprising:  
a storage medium configured to store one or more sets of relationships between bit patterns and one or more types of sound parameters; and  
wherein the data coder is configured to convert the digital data into the one or more types of sound parameters based on the one or more sets of relationships.
3. The apparatus of claim 2, wherein the storage medium comprises a look up table that predefines one or more sets of relationships.
4. The apparatus of claim 1, wherein a sound parameter represents one value or a range of values.
5. The apparatus of claim 1, wherein the one or more sound parameters comprises a speech parameter.
6. Apparatus for receiving digital data comprising:  
a sound analyzer configured to receive sound and to extract one or more types of sound parameters from the received sound; and  
a data decoder coupled to the sound analyzer and configured to convert the extracted one or more types of sound parameters into the digital data.
7. The apparatus of claim 6, further comprising:  
a storage medium configured to store one or more sets of relationships between bit patterns and one or more types of sound parameters; and  
wherein the data decoder is configured to convert the extracted one or more types of sound parameters into the digital data based on the one or more sets of relationships.

8. The apparatus of claim 7, wherein the storage medium comprises a look up table that predefines one or more sets of relationships.
9. The apparatus of claim 6, wherein a sound parameter represents one value or a range of values.
10. The apparatus of claim 6, wherein the extracted one or more sound parameters comprise a speech parameter.
11. A method for transmitting digital data comprising:  
converting digital data to be transmitted into one or more types of sound parameters; and  
generating sound based on the one or more types of sound parameter.
12. The method of claim 11, further comprising:  
storing one or more sets of relationships between bit patterns and one or more types of sound parameters; and  
wherein converting digital data to be transmitted comprises converting the digital data into the one or more types of sound parameters based on the one or more sets of relationships.
13. The method of claim 12, wherein storing the one or more sets of relationships comprises storing a look up table that predefines one or more sets of relationships.
14. The method of claim 11, wherein a sound parameter represents one value or a range of values.
15. The method of claim 11, wherein the one or more sound parameters comprises a speech parameter.
16. A method for receiving digital data comprising:  
extracting one or more types of sound parameters from received sound; and  
converting the extracted one or more types of sound parameters into the digital data.
17. The method of claim 16, further comprising:

storing one or more sets of relationships between bit patterns and one or more types of sound parameters; and

wherein converting the extracted one or more types of sound parameters comprises converting the extracted one or more types of sound parameters into the digital data based on the one or more sets of relationships.

18. The method of claim 17, wherein storing the one or more sets of relationships comprises storing a look up table that predefines one or more sets of relationships.

19. The method of claim 16, wherein a sound parameter represents one value or a range of values.

20. The method of claim 16, wherein the extracted one or more sound parameters comprise a speech parameter.

21. Apparatus for transmitting digital data comprising:  
means for converting digital data to be transmitted into one or more types of sound parameters; and  
means for generating sound based on the one or more types of sound parameter.

~~22. The apparatus of claim 21, further comprising:~~

means for storing one or more sets of relationships between bit patterns and one or more types of sound parameters; and

wherein the means for converting converts the digital data into the one or more types of sound parameters based on the one or more sets of relationships.

23. The apparatus of claim 22, wherein the means for storing stores a look up table that predefines one or more sets of relationships.

24. Apparatus for receiving digital data comprising:  
means for extracting one or more types of sound parameters from received sound; and  
means for converting the extracted one or more types of sound parameters into the digital data.

25. The apparatus of claim 24, further comprising:  
means for storing one or more sets of relationships between bit patterns and one or more types of sound parameters; and  
wherein the means for converting converts the extracted one or more types of sound parameters into the digital data based on the one or more sets of relationships.
26. The apparatus of claim 25, wherein the means for storing stores a look up table that predefines one or more sets of relationships.
27. Machine readable medium used for transmitting digital data comprising:  
codes for converting digital data to be transmitted into one or more types of sound parameters; and  
codes for generating sound based on the one or more types of sound parameter.
28. The medium of claim 27, further comprising:  
one or more sets of relationships between bit patterns and one or more types of sound parameters; and  
wherein the codes for converting converts the digital data into the one or more types of sound parameters based on the one or more sets of relationships.
29. Machine readable medium used for receiving digital data comprising:  
codes for extracting one or more types of sound parameters from received sound; and  
codes for converting the extracted one or more types of sound parameters into the digital data.
30. The medium of claim 29, further comprising:  
one or more sets of relationships between bit patterns and one or more types of sound parameters; and  
wherein the codes for converting converts the extracted one or more types of sound parameters into the digital data based on the one or more sets of relationships.
31. Apparatus for transmitting and receiving digital data comprising:  
means for converting digital data to be transmitted into one or more types of sound parameters;

means for generating sound based on the one or more types of sound parameter;  
means for extracting one or more types of sound parameters from received sound; and  
means for converting the extracted one or more types of sound parameters into the digital data.

32. The apparatus of claim 31, further comprising:

means for storing one or more sets of relationships between bit patterns and one or more types of sound parameters; and

wherein the means for converting converts the digital data into the one or more types of sound parameters based on the one or more sets of relationships, and wherein the means for converting converts the extracted one or more types of sound parameters into the digital data based on the one or more sets of relationships.

33. The apparatus of claim 32, wherein the means for storing stores a look up table that predefines one or more sets of relationships.